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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,467	10/07/2005	Tetsujiro Kondo	278694US6PCT	2209

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EXAMINER	
THIRUGNANAM, GANDHI	
ART UNIT	**PAPER NUMBER**
2624	

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10552467	10/7/2005	KONDO ET AL.	278694US6PCT

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ART UNIT	**PAPER**
2624	20100517

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Commissioner for Patents

Applicant is advised that due to a typographical error, the rejections of claims 2-7 and 9-14 under 35 U.S.C. 112, first paragraph were not included in the Prior Office Action. These claims are rejected as being dependent on a rejected base claim and failing to overcome the deficiencies of said base claims. These claim's grounds of rejections have been included in this Examiner's Answer. Any inconveniences are regretted. Since a new ground of rejection was introduced, the examiner's answer includes TC Director's approval.

/Bhavesh M Mehta/
Supervisory Patent Examiner, Art Unit 2624

/Gandhi Thirugnanam/
Examiner, Art Unit 2624

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/552,467
Filing Date: October 07, 2005
Appellant(s): KONDO ET AL.

Bradley D. Lytle, Reg. # 40,073
Andrew T. Harry, Reg. # 56,959
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01 March 2010 appealing from the Office action mailed 14 August 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-16 are rejected and pending in the application.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

NEW GROUND(S) OF REJECTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-7 and 9-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 2-7 are rejected as being dependent on the rejected base claim 1 *(See Office Action dated 08/14/2009, page 3 paragraph 4 or See Section (9) below)* and failing to overcome the deficiencies of said base claim under 35 USC 112 1st paragraph.

Claims 9-14 are rejected as being dependent on the rejected base claim 8 *(See Office Action dated 08/14/2009, page 4 paragraph 2 or See Section (9) below)* and failing to overcome the deficiencies of said base claim under 35 USC 112 1st paragraph.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The Examiner withdraws the Prior Art rejections:

Claims 1-5, 8-12 and 15-16 under 35 USC 103(a) over Kondo (PGPub #2004/0021775) in view of Burt (Patent #5,999,662).

Claims 6 and 13 under 35 USC 103(a) over Kondo (PGPub #2004/0021775) in view of Burt (Patent #5,999,662) in further view of Wang (Patent #5,557,684).

Claims 7 and 14 under 35 USC 103(a) over Kondo (PGPub #2004/0021775) in view of Burt (Patent #5,999,662) in further view of Wang (Patent #5,557,684) in further view of Kondo (Patent #5,940,539).

The Prior Art of Record fails to disclose "combining the motion-blurring-mitigated object image ... into a space-time location in each of the multiple images ..."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 line 12-13 recites "... into a space-time location in each of the multiple images based on the motion vector". The Examiner was unable to find support for this limitation. There is support for detecting a motion vector of moving object that moves in multiple images (See PGPub of Pending Application US2006/0192857, paragraph 59). The Examiner does see in ('857, paragraph 61) that the "a motion-blurring-mitigated object image of the moving object is combined into a position of a target pixel in an image or a position that corresponds to a target pixel in the other image", not each of the multiple images.

Claims 8, 15 and 16 are rejected under the same reasoning as claim 1 above.

Claims 2-7 are rejected as being dependent on the rejected base claim 1 and failing to overcome the deficiencies of said base claim under 35 USC 112 1st paragraph.

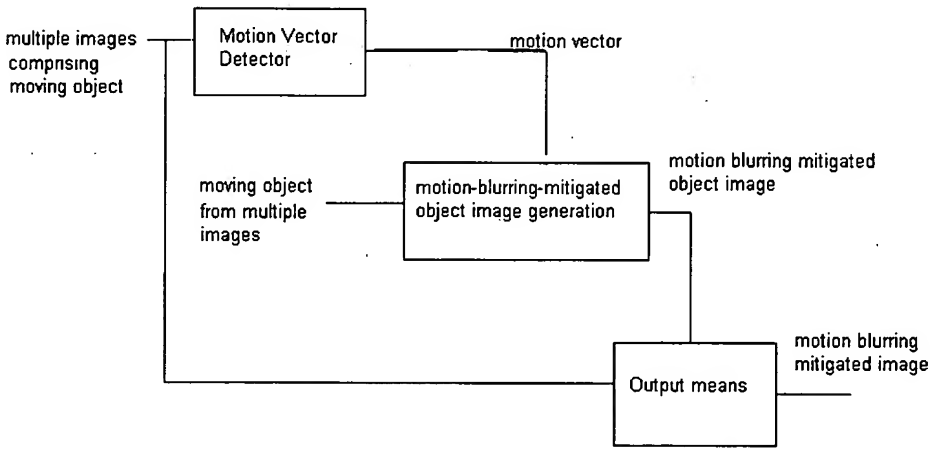
Claims 9-14 are rejected as being dependent on the rejected base claim 8 and failing to overcome the deficiencies of said base claim under 35 USC 112 1st paragraph.

(10) Response to Argument

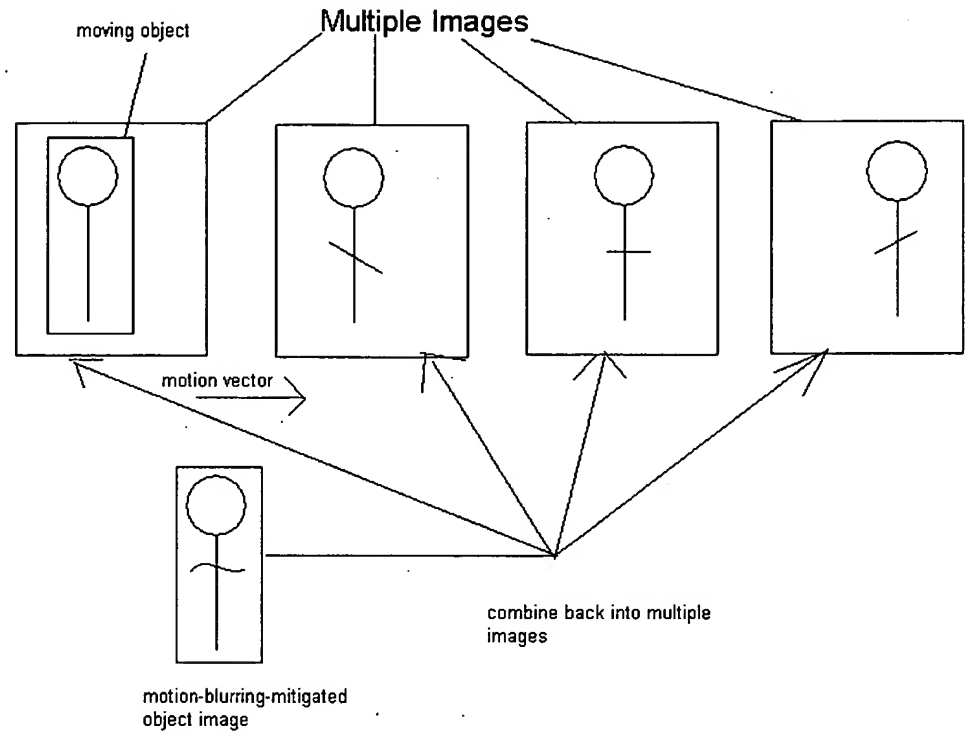
Summary of claim:

*A motion vector detector which detects a motion vector for a moving object in multiple images
*A motion blurring mitigated object image generation means which uses the motion vector with a moving object to generate a motion mitigated object image (un-blurred object).
*An output means which combines the motion mitigated object image into each of the multiple images based on the motion vector to output motion blurring mitigated image.

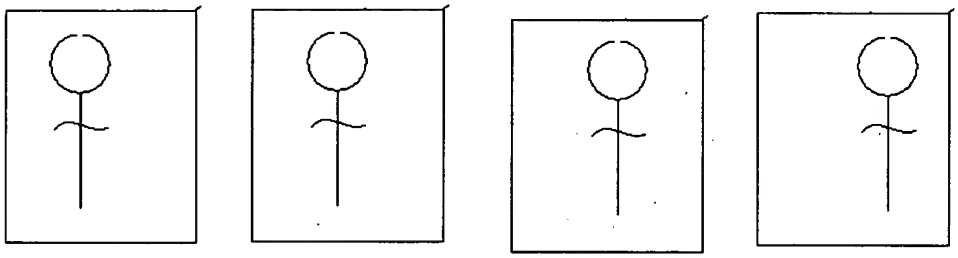
In Figure form



An Example of this claim would be:

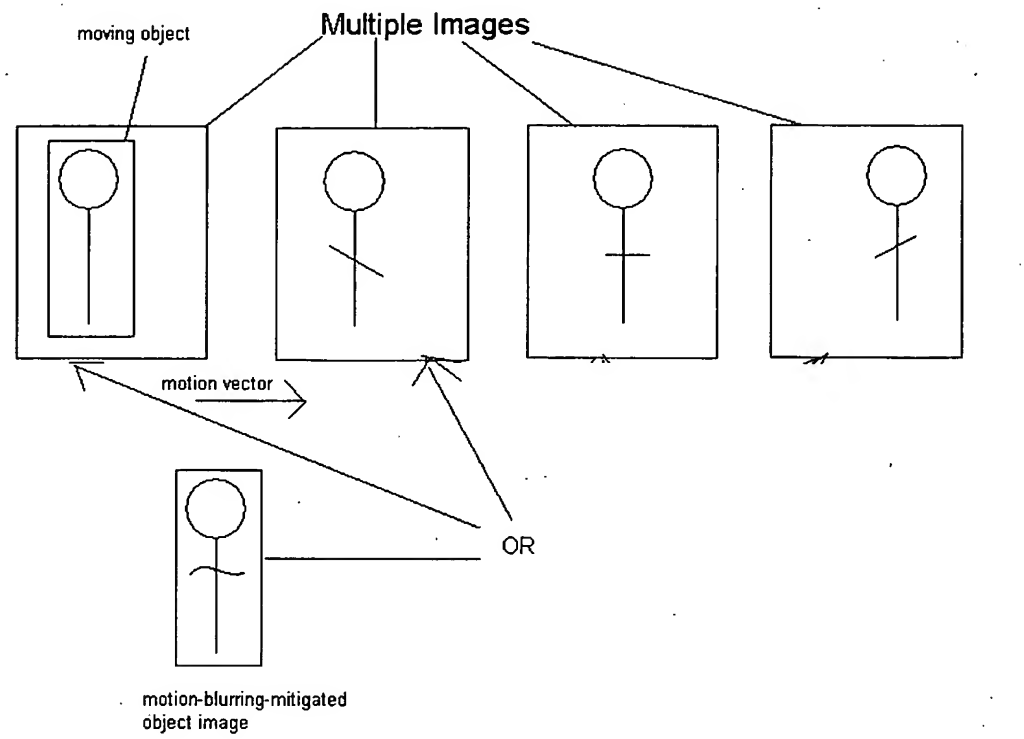


Becoming this

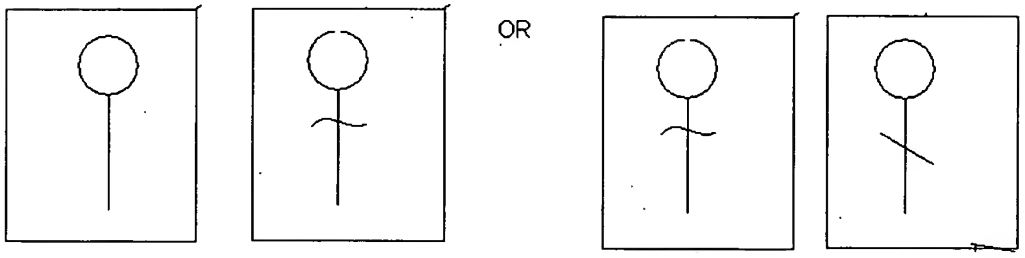


The key point of contention is that the Examiner does not believe that "combining the motion-blurring-mitigated object image into a space-time location in each of the multiple images" is disclosed in the original disclosure.

Below is an example of what the Examiner believes the invention should be based on the original disclosure.



Becoming this



This can be seen in many locations such as page 16 paragraph 2.

The output section 50 combines an image of foreground region in which motion blurring based on the foreground component image data DBf onto a background image based on the background component image data DBb, thereby generating image data DVout of the motion-blurring-mitigated image and outputting it. In this case, the foreground region image, which is the motion-blurring-mitigated object image, can be combined into a space-time position that corresponds to the detected motion vector MVC, to output a motion-blurring-mitigated object image of the moving object to a position that tracks the moving object. That is, when the motion vector is detected using at least first and second images that occur successively in time, a motion-blurring-mitigated object image of the moving object is combined into a position of a target pixel in an image or a position that corresponds to a target pixel in the other image, both positions of which correspond to this detected motion vector.

As stated above "when the motion vector is detected using at least first and second images that occur successively in time, a motion-blurring-mitigated object image of the moving object is combined into a position of a target pixel in an image or a position that corresponds to a target pixel in the other image, both positions correspond to the detected motion vector".

Note the singular "image". In this paragraph the "an image" would refer to the first image and the "other image" would refer to the second image. This is not to each of the multiple images

Detailed Response to Applicant's Arguments

Applicant attempts to show support. Applicant's arguments and the Examiners response follows below.

Applicant indicated support for Claims 1, 8, 15 and 16, especially the feature of "combining the motion-blurring-mitigated object image generation means into a space-time location in each of the multiple images based on the motion vector ..." with their argument repeated below.

The Examiner agrees with Applicant's arguments starting from (page 5, paragraph 3) to (page 6, paragraph 2).

Applicant argues on page 6-7

Pp. 2-4 of the AA also acknowledges that the specification clearly provides support for the claimed feature of combining the motion-blurring-mitigated object image into a space-time location in the image from which it was extracted, or in another image, based on a detected motion vector. Therefore, the basis of contention appears to be whether the specification provides support for the claimed feature of combining the same motion-blurring-mitigated object image into subsequent, or multiple, images (i.e. "each of the multiple images").

In this regard. p. 16, ll. 7-17 of the specification states

> In this case, the foreground region image, which is the motion-blurring-mitigated object image, can be combined into a space-time position that corresponds to the detected motion vector MVC, to ***output a motion-blurring-mitigated object image of the moving object to a position that tracks the moving object.*** That is, when the motion vector is detected using at least first and second images that occur successively in time, ***a motion-blurring-mitigated object image of the moving object is combined into a position of a target pixel in an image or a position that corresponds to a target pixel in the other image, both positions of which correspond to this detected motion vector.*** (emphasis added)

Therefore, the specification discloses that the motion-blurring-mitigated object image is output to a position that ***tracks the moving object***, and that the motion-blurring-mitigated object image ***of the moving object*** is combined into the image of the object being tracked ***in both images***, and the placement of the motion-blurring-mitigated object image in ***both positions correspond to this detected motion vector.***

Examiner's Response:

The basis of contention is whether the specification provides support for the claimed feature means into a space-time location in **each** of the multiple images. The use of "subsequent" or "multiple images" is not part of the claim language. Subsequent implies not affecting the current (first image). Multiple images also may not include the first image which is clearly required for the limitation "**each** of the multiple images". The use of "subsequent" or "multiple images" may have negated the pending rejection under 35 USC 112 1st paragraph.

In regards to the cited text (pg. 16, lines 7-17),

> "That is, when the motion vector is detected using at least first and second images that occur successively in time, a motion-blurring-mitigated object image of the moving object is combined into a position of a target pixel in an image or a

> position that corresponds to a target pixel in the other image, both positions of which correspond to this detected motion vector."

This cited text shows the Examiners point. The motion-blurring mitigated object image is combined in an image or position that corresponds to a target pixel **in the other image**. That is the motion-blurring mitigated object image is combined into a single image, being the other image. The positions are based on the detected motion vector.

It is clear that the object is tracked in both images (thereby creating a motion vector). There is no disclosure that the object is combined into both images, just "the other image".

Applicant argues on page 7

> Moreover, Figs. 24A-25F and p. 47, l. 1 – p. 48, l. 17 further expands on the above noted feature by disclosing that even when the moving object OBf moves in an order of Figs. 24A, 24B, and 24C (e.g. clearly a progression of OBf through a time sequence of images), motion blurring of this moving object OBf has been mitigated as tracking it (i.e. OBf) through each of the time sequence of images.

Examiner's Response:

The pg. 47 line 1 – pg. 47 line 11 states:

> Meanwhile, in the above embodiments, motion blurring of an moving object OBf is mitigated to output its image, so that, as shown in FIG. 24 even when the moving object OBf moves in an order of FIGS. 24A, 24B, and 24C, motion blurring of this moving object OBf has been mitigated as tracking it, thereby outputting a good image thereof in which motion blurring of this moving object OBf has been mitigated. However, alternatively, by controlling a display position of an image so that the image of the motion-blurring-mitigated moving object OBf

> may be located to a predetermined position on a screen on the basis of the moving object OBf, such an image can be output as to track the moving object OBf.

Fig. 24, copied below for easier reference, "are diagrams showing an example where an object moves" (Specification, page 9 Lines 16-17)

This paragraph merely states that motion blurring has been mitigated as tracking it (the moving object). That is a good image has a blurring mitigated object image (DBf) instead of the blurry moving object image (OBf).

The paragraph further states motion blurring mitigated moving object (OBf) may be located in a predetermined position on the screen.

There is no disclosure that the same blurring mitigated object image (DBf) is combined into **each** of the multiple frames.

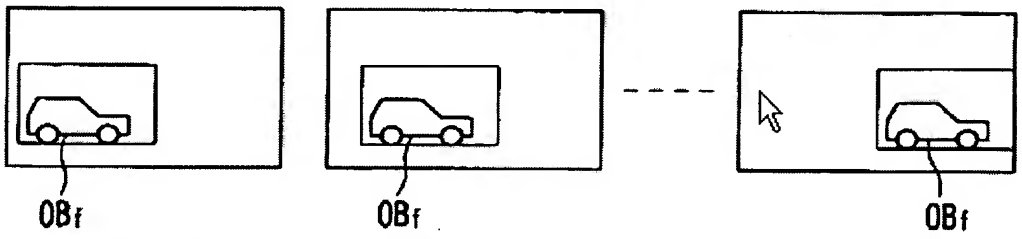


FIG. 24A FIG. 24B FIG. 24C

Applicant argues on page 8:

P. 5 of the AA appears to concede that the above noted portion of the specification does appear to describe a process of combining OBf into each of a plurality of sequential images to track the image, but asserts that OBf does not correspond to a "motion-blurring mitigated object image". Specifically, the AA asserts that "[t]he Examiner disagrees that the 'it' refers to the 'motion-blurring-mitigated object image' ... [t]he 'it' refers to the moving object OBf" ... [t]he first instance of motion-blurring-mitigated object is after the word 'it', so 'it' must correspond to the moving object OBf." Appellants respectfully traverse this assertion, as OBf corresponds to both the moving object, as well as the motion-blurring mitigated image of the moving object.

Particularly, p. 47, ll. 1-11 of the specification discloses

> Meanwhile, in the above embodiments, ***motion blurring of an moving object OBf is mitigated to output its image***, so that, as shown in FIG. 24 even when the moving object OBf moves in an order of FIGS. 24A, 24B, and 24C, ***motion blurring of this moving object OBf has been mitigated as tracking it***, thereby ***outputting a good image thereof in which motion blurring of this moving object OBf has been mitigated.***

Therefore, the AA concedes that the image being "tracked" (e.g. combined into subsequent images) in the above noted portion of the specification is OBf. As discussed above, OBf corresponds to the image data of the motion-blurring-mitigated object image. While the specification does at times refer to OBf as being the moving object, the context of the specification clearly discloses that OBf also corresponds to the object image after motion-blurring-mitigation of the image data has occurred.

Therefore, the process of tracking the motion-blurring-mitigated object image through an order of images, as discussed above, clearly provides support for the feature of "... combining the motion-blurring-mitigated object image ... into a space-time location in each of the multiple images ...", as recited in independent Claims 1, 8, 15 and 16.

Examiner's Response:

The Examiner disagrees with Applicant's allegation that OBf corresponds to the image data of the motion-blurring-mitigated object image.

OBf refers to the "moving object" for example see (pg. 10 l.8, pg. 11 l.9, pg. 11 l.17, pg. 47 l.3, pg. 47 l. 24, pg. 47 l.1-2 etc.)

It is unclear how OBf can mean both "moving object" and "motion-blurring mitigated object" as applicant is arguing. The original disclosure clearly states that DBf is the "motion blurring mitigated object". for example see (pg. 15 l.25, pg. 16 l.3, pg. 19 l. 26-27, pg. 36 lines 1-2, as well as Fig. 5, Fig. 7 etc.)

The Examiner agrees the object being tracked in the multiple images is OBf. The Examiner disagrees that "tracking" and "combining" are equivalent. For Example looking at claim 1, tracking is part of the "motion vector detection means" and the "combining" is part of the "output means".

Furthermore, Even if Applicant is correct, which the Examiner is not conceding, being combined in subsequent images still does not combine in each of the multiple images. Subsequent does not include the first image.

Therefore there is clearly no support for the feature of "combining the motion-blurring-mitigated object image ... into space-time location in each of the multiple images...", as recited in independent claims 1, 8, 15 and 16.

Applicant argues on Page 9.

Further, with respect to the written description requirement, there is no *in haec verba* requirement, and claim limitations may be supported by the specification through ***express, implicit, or inherent*** disclosure.[1] To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention.[2]

If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g., *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) ***(stating "the description need not be in ipsis verbis [i.e., "in the same words"] to be sufficient").***

Examiner's Response:

It is not clear which if Applicant is claiming "express", "implicit" or "inherent" disclosure or a combination of these. The Examiner does not believe any of these have been met.

(11) Related Proceeding(s) Appendix

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Gandhi Thirugnanam/

Examiner, Art Unit 2624

Conferees:

/Bhavesh M Mehta/

Supervisory Patent Examiner, Art Unit 2624

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624

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